



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,503	07/15/2005	Noboru Toyozawa	SON-2902	5942
23353 7590 01/08/2008 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER SAID, MANSOUR M	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 01/08/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/542,503	<b>Applicant(s)</b> TOYOZAWA ET AL.	
	<b>Examiner</b> MANSOUR M. SAID	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/15/05, 12-26-07</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Prior Art (hereinafter referred to as APA) in of Owaki Yoshio et al. (JP-07-271323; hereinafter referred to as Yoshio).**

As to claim 1, APA teaches a display apparatus that is used as a display component of an electronic device capable of switching between a normal power consumption state and a low power consumption state and includes a panel in which a display area and a peripheral circuit

section for driving the display area are integrally formed on an insulating substrate (specification pages 2-3), wherein said circuit section can switch between an operation mode and a waiting mode in response to the switching between the normal power consumption state and the low power consumption state of a main body of the electronic device (specification page 3), said circuit section comprises standby control means that operates by receiving power supply voltage from the main body of the electronic device and drives the display area to show a desired image in the operation mode (specification page 3), and while receiving the power supply voltage from the main body of the electronic device, stops driving the display area (specification 3), and inactivates the circuit section to suppress power consumption of the panel in the waiting mode (standby mode) (specification page 3).

APA does not expressly disclose said standby control means executes a control sequence to shut off direct current components flowing through resistive elements at least included in the circuit section during the inactivation.

However, Yoshio teaches said standby control means executes a control sequence to shut off direct current components flowing through resistive elements at least included in the circuit section during the inactivation (abstract).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Yoshio's teaching into APA's device so as to reduce the power consumption and improve the operability by stopping a display operation (abstract).

**4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Yoshio as applied to claim 1 above, and further in view of Nakamura et al. (2001/0035862 A1; hereinafter referred to as Nakamura).**

APA and Yoshio teach all claimed limitations in claim 7 except the peripheral circuit section for driving the display area on the common insulating substrate in an identical process.

However, Nakamura teaches a display device includes pixel array (figure 2, (1)), peripheral circuit section ((control IC, (figure 2 (5)), (signal driving circuit (figure 2 (2)) & (scanning driving circuit, (figure 2, (3))) for driving the display area on the common insulating substrate (glass substrate, (figure 2, (10)) in an identical process (figure 2, abstract and page 4, paragraphs 0103-0107).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Nakamura's display circuit into APA's modified system so as to provide a display device in which a reduction in size can be realized and a power consumption can be reduced (page 1, paragraph 0014).

***Allowable Subject Matter***

**5. Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

The following is a statement of reasons for the indication of allowable subject matter:

**As to claims 2-3**, “wherein said circuit section comprises a start circuit for charging the offset circuit so as to apply the common voltage quickly upon activation of the panel in addition to the common driver for applying the common voltage to the common electrodes and the offset circuit for adjusting the level of the common voltage, and said standby control means executes a control sequence to shut off direct current components flowing through resistive elements included in the start circuit during the inactivation”.

**As to claim 4**, “wherein said display area comprises pixels arranged as a matrix, said circuit section comprises drivers for writing analog voltages having gradations in accordance with image information sent from the main body of the electronic device to the pixels, and an analog voltage generator for supplying at a plurality of levels of the analog voltages already corresponding to the gradations to the driver, and said standby control means executes a control sequence to shut off direct current components flowing through series resistive elements for voltage splitting included in the analog voltage generator during the inactivation”.

**As to claims 5-6**, “wherein said circuit section comprises a DC/DC converter for converting a primary power supply voltage supplied from the main body of the electronic device to a secondary power supply voltage in accordance with specifications of the panel, and said standby control means executes a control sequence to block clocks supplied to the DC/DC converter to suppress charge and discharge occurring in the DC/DC converter during the inactivation”.

*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamada (7,002,547 B2) teaches a current control device that detects brightness around the liquid crystal device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mansour M. Said whose telephone number is 571-272-7679. The examiner can normally be reached on Monday through Thursday from 8:30-6:00 P.M. The examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Application/Control Number:  
10/542,503  
Art Unit: 2629

Page 7

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Mansour M. Said**

1/3/08



**RICHARD WIERPE**  
SUPERVISORY PATENT EXAMINER  
TECHNICAL CENTER 2800